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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,615	06/15/2006	Werner Knebel	LASPI30US	3004
24041	7590	11/30/2007		
SIMPSON & SIMPSON, PLLC 5555 MAIN STREET WILLIAMSVILLE, NY 14221-5406			EXAMINER NGUYEN, THONG Q	
			ART UNIT 2872	PAPER NUMBER
			MAIL DATE 11/30/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/565,615

Applicant(s)

KNEBEL, WERNER

Examiner

Thong Q. Nguyen

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2006 and 24 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,9 and 12 is/are rejected.
- 7) ☒ Claim(s) 6-8,10,11 and 13-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/24/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Pre-Amendment***

1. The present Office action is made in response to the Pre-amendment filed on 1/24/2006. It is noted that in the pre-amendment, applicant has made changes to the specification. There is not any change to the claim as provided in the Pre-amendment. It is also noted that a clean version of the substitute specification filed by applicant on 8/9/2006 has been received by the Office.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

3. The information disclosure statement filed on 1/24/2006 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

First, each of the Germany reference Nos. DE 198 59 314 and DE 202 06 153 has not been considered and also has been lined-through because applicant has not included a concise explanation of the relevance of each reference.

Second, the citations of the U.S. Patent Application publications have not been considered and also have been lined-through because the information related to

the serial number of each publication is incomplete. Applicant should note that each publication must have seven numbers after the year. In the application, since applicant has just provided only six numbers after the year, thus it is not able for the examiner to determine which publication is to be considered.

4. The listing of references in the specification, see pages 2-3, is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Drawings***

5. The drawings contained four sheets of figures 1-4 were received on 8/9/2006. These drawings are objected by the examiner for the following reason(s).

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, first, the feature related to a spectral detector as recited in claim 1, line 2; and second, the feature related to a spectral splitter component contains a grating as recited in claim 2, lines 1-2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

7. The substitute specification filed on 8/9/2006 has been received by the Office. It is noted that the substitute specification still contains some marked-up changes in page 3 (the second and third paragraph); page 4 (the first paragraph); and page 5 (the second paragraph). In the spirit of cooperation, the substitute specification has been entered; however, applicant must provide an amendment to delete the marked-up words in pages 3-5 of the substitute specification in response to this Office action.

8. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

9. The disclosure is objected to because of the following informalities: Page 2, lines 2-3, the terms "is then the focused on" should be changed to --is then focused on--. Appropriate correction is required.

***Claim Objections***

10. Claims 6-8, 10-11 and 13-16 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

11. Claims 1, 4 and 5 are objected to because of the following informalities. Appropriate correction is required.

a) Claim 1 recites the limitations thereof "the detection light" on line 2; "the sample" on line 2; "the illumination beam" on lines 3-4; and "the detection beam" on line 4. There is insufficient antecedent basis for each of the mentioned limitations in the claim. The following corrections are suggested to claim 1.

First, the limitation thereof "the detection light" on line 2 should be changed to --a detection light--;

Second, the limitation thereof "the sample" on line 2 should be changed to --a sample--; and

Third, the term --path-- should be added after the limitation thereof "the illumination beam" on lines 3-4 and the limitation thereof "the detection beam" on line 4. Applicant should note that the claim recites an illumination beam path and a detection beam path on lines 1 and 3, respectively.

b) Claim 4 recites the limitation thereof "the prism" on line 2. There is insufficient antecedent basis for the mentioned limitation in the claim. Applicant should note that the prism is recited on claim 3, not claim 1. Should the claim be amend to depend upon claim 3?

c) Claim 5/3 recites the limitation thereof "the boundary surface" on lines 1-2. There is insufficient antecedent basis for the mentioned limitation in the claim. Applicant should note that the boundary surface is recited on claim 4, not claim 3. Should the claim be amend to depend upon claim 4?

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

13. Claims 1-4, as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Drabenstedt (WO 02/14811).

Drabenstedt discloses a dispersive element for use in a confocal microscope. The confocal microscope as described in pages 8-9 and shown in figs. 1-3 comprises the following features: a) At least one light source (9) defining an illumination beam path (10); b) optics (12-14) for guiding illumination beam path to an object (15); c) a spectral detector (5.6) for detecting light (2) reflected from the object; d) a dispersive element disposed on both the illumination beam path 910) and the detected beam path 92) to separate the illumination beam path (10) and the detected beam path (2). See in particular, in page 9 and fig. 3. See also the English translation of the WO 02/14811, pages 2-3. Regarding to the feature related to the grating of the dispersive element, Drabenstedt discloses that the dispersive element can be a reflection diffraction grating or a transmission diffraction grating or a dispersive prism. See the WO 02/14811, page 6, the third paragraph. It is noted that since the dispersive element can be a reflection diffraction grating, it is inherently that at least a portion of the boundary surface of the element is coated by a reflective coating for reflecting either the illumination beam path or the detected beam path via an internal reflection.

14. Claims 1-2, as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Engelhard et al (U.S. Patent No. 6,654,165).

Engelhard et al disclose the use of a spectrally selective element in a confocal scanning microscope. The confocal scanning microscope as described in column



7 and shown in fig. 4 comprises the following features: a) At least one light sources (2) for providing illumination light (3); b) optics (18, 8, 1) for guiding illumination beam to an object (10); c) a spectral detection system (15) for detecting light (11) reflected from the object via a detection beam path (12); and d) a spectrally selective element (4) in the form of a transparent grating (20) disposed on both the illumination beam path (3) and the detection beam path (12) to separate the two mentioned beam paths.

15. Claims 1, 3 and 12, as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Engelhard et al (U.S. Patent No. 6,654,165).

Engelhard et al disclose the use of a spectrally selective element in a confocal scanning microscope. The confocal scanning microscope as described in column 7 and shown in fig. 4 comprises the following features: a) At least one light sources (2) for providing illumination light (3); b) optics (18, 8, 1) for guiding illumination beam to an object (10); c) a spectral detection system (15) for detecting light (11) reflected from the object via a detection beam path (12); and d) a spectrally selective element (4) disposed on both the illumination beam path (3) and the detection beam path (12) to separate the two mentioned beam paths. Regarding to the structure of the spectrally selective element (4), in the embodiment as described in columns 7-8 and shown in fig. 7, Engelhard et al disclose that the element is in the form of a crystal prism (17, 19) operated by a piezoelectric element (23) so that the light reflected from the object is guided to the detection system via the detection beam path (14). It is noted that the

element (17,19) has a boundary surface with a stepped or tapered portion wherein the portion on the lower section of the element faces to the at least one light source is stepped/tapered with respect to the portion on the upper section of the element faces the detection system.

16. Claims 1 and 3-5, as best as understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Osipchuk et al (U.S. Patent No. 6,628,385).

Osipchuk et al discloses a fluorescent optical imaging system for use in a scanning microscope. See column 4, lines 40-44. The imaging system as described in columns 4-5 and shown in fig. 1 comprises the following features: a) at least one light sources (L1, L2) for defining an illuminating beam path (B1, B2); optics (17, 14) for guiding light from the at least one light sources to a sample (12); b) a detecting system (22, 24, PMT1-2) for receiving light reflected from the sample wherein the detectors of the detecting system can be spectral detectors, see column 9, lines 65+ through column 10, lines 1-5; c) a dispersive prism (13) disposed on both the illumination beam path and the detected beam path to separate the mentioned beam path. Regarding to the structure of the dispersive prism 913), in the embodiment as provided in column 8 and shown in fig. 8, the element (13) comprise a small prism (85) and a large prism (87) combined together wherein the illumination beam path from the at least one light sources pass through the small prism and the large prism while the detected illuminations reflected from a boundary surface of the large prism via a total reflection.

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 9, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Osipchuk et al (U.S. Patent No. 6,628,385).

The dispersive element (13) as described in column 8 and shown in fig. 8 does not state the use of an antireflective coating on the non-reflection portion of the boundary surface. However, the use of an antireflection coating on the non-reflection portion of a boundary surface is suggested by Osipchuk et al as can be seen in the embodiment described in column 8, lines 41-44 and shown in fig. 7. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the dispersive prism (13) of the embodiment disclosed in column 8 and shown in fig. 8 by using an antireflective coating on non-reflective portion of the boundary surface as suggested by Osipchuk et al in the embodiment described in column 8 and shown in fig. 7 for the purpose of increasing the transmission of light passing through the prisms.

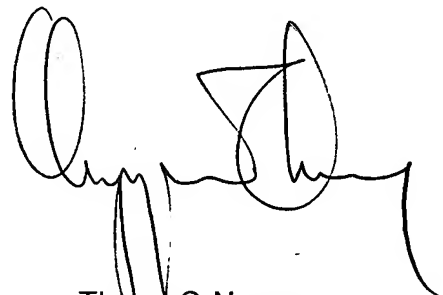
***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thong Q. Nguyen  
Primary Examiner